

US EPA ARCHIVE DOCUMENT



**Deigan & Associates, LLC**

**Environmental Consultants**

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North Chicago, Illinois 60064

**847.578.5000**

**fax 847.578.5010**

July 20, 2011

Christine M. McConaghay, M.E.M. via email to [mcconaghay.christine@epa.gov](mailto:mcconaghay.christine@epa.gov)  
U.S. Environmental Protection Agency  
RCRA Corrective Action Project Manager  
Quality Assurance Liaison  
77 West Jackson Blvd.  
Chicago, Illinois 60604-3590

**Re: Description of Current Conditions (DOCC) Report Addendum  
6th Round of Groundwater Sampling/Analysis  
Former Lake Shore Foundry, Waukegan, IL. (ILR000 1110591)**

Dear Ms. McConaghay:

As requested by USEPA, enclosed please find the results of an additional (6<sup>th</sup>) round of groundwater sampling and analysis at the above-referenced property conducted on behalf of NorStates Bank, which received the property via foreclosure. This round includes the analysis of groundwater from the new well (designated as MW-05) located east of MW-02 between MW-02 and Lake Michigan. This MW-05 well was strategically located to demonstrate that minor concentrations of metals being detected in MW-02 near the former Foundry building are not migrating to Lake Michigan, as evidenced by the data collected from MW-05. A boring log and well construction diagram is enclosed for the new well MW-05 installed April 21, 2011 and first sampled on June 14, 2011. Groundwater flow direction is also confirmed via water level readings as depicted in Figure 1, Groundwater Contour Map.

Table 1 provides a summary table comparing the June 14th, 2011 sampling event for total and dissolved metals against the applicable Illinois Class I & II groundwater standards. The data shows that no Class I & II groundwater standards are exceeded at the four (4) on-site monitoring wells (MW-01, MW-03, MW-04 and MW-05) MW-02 which is located near former building source areas has only slight exceedances of Class I groundwater standards for total cadmium, copper, and lead on June 14, 2011. Dissolved concentrations of copper and lead do not exceed Illinois Class I groundwater standards. The dissolved concentration of cadmium at MW-02 slightly exceeds the Class I groundwater standard.

Former Lakeshore Foundry

July 20, 2011

DOCC Addendum

The City of Waukegan has a groundwater use restriction ordinance as an institutional control that precludes the installation and use of a groundwater withdrawal well on the subject property. A copy is enclosed.

**Table 2**  
**Comparison to Great Lakes Initiative Chronic Exposure Standards (ppm)**  
**June 14, 2011 Sampling Event**

On-site Well	Dissolved Cu (ppm)	Meets GLI Chronic Exposure Std. (Cu) 0.012 ppm	Meets 10X Dilution Exposure Std. of EI (0.12 ppm)
MW-1	0.0028	Yes	Yes
MW-2	0.63	No	No
MW-3	0.15	No	Equivalent
MW-4	0.015	Equivalent	Yes
MW-5	0.0034	Yes	Yes
On-site Well	Dissolved Cd (ppm)	Meets GLI Chronic Exposure Std. (Cd) 0.0027 ppm	Meets 10X Dilution Exposure Std. of EI (0.027 ppm)
MW-1	<0.0020	Yes	Yes
MW-2	0.0067	No	Yes
MW-3	<0.0020	Yes	Yes
MW-4	<0.0020	Yes	Yes
MW-5	<0.0020	Yes	Yes

We believe the additional data provided by MW-5 and its position downgradient of MW-2 will now allow a “yes” determination in the USEPA’s Environmental Indicator Report. Please contact me with any comments or questions and what next timely steps can be taken to close out the Consent Order.

Sincerely,  
 Deigan & Associates, LLC

  
 Gary J. Deigan, Principal

cc: K. Biegay, NorStates Bank

Enclosures:  
 Table 1, Figure 1 and Lab Data  
 Waukegan Groundwater Use Restriction Ordinance

Customer	Deigan & Associates
Project	Former Lake Shore Foundry
Sample Date	6/14/2011
Lab Name	TestAmerica Chicago
Job Number	500-35392-1

TABLE 1

Analytical Results for Water Samples	Exposure Routes for Specific SRO*				Sample ID		EXISTING AMPSKY WELL (Background)				
	Ingestion	Inhalation	Class I	Class II	LSF MW01	LSF MW02	LSF MW03	LSF MW04	LSF MW05		
Method	Analyte	mg/L	mg/L	mg/L	mg/L	6.89	7.09	7.40	7.36	7.17	7.15
6010B	Arsenic	NRO	NRO	0.05	0.2	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
6010B	Barium	NRO	NRO	2	2	0.080	0.10	0.049	0.075	0.11	0.057
6010B	Beryllium	NRO	NRO	0.004	0.5	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
6010B	Cadmium	NRO	NRO	0.005	0.05	<0.0020	<b>0.0072</b>	<0.0020	<0.0020	<0.0020	<0.0020
6010B	Chromium	NRO	NRO	0.1	1	<0.010	0.0050	<0.010	0.0018	<0.010	<0.010
6010B	Cobalt	NRO	NRO	1	1	<0.0050	0.0026	<0.0050	<0.0050	<0.0050	<0.0050
6010B	Copper	NRO	NRO	0.65	0.65	<0.010	<b>0.76</b>	0.15	0.030	0.011	<0.010
6010B	Lead	NRO	NRO	0.0075	0.1	<0.0050	<b>0.025</b>	<0.0050	<0.0050	0.0034	<0.0050
6010B	Nickel	NRO	NRO	0.1	2	0.0012	0.078	0.012	0.0050	0.0015	0.0014
6010B	Selenium	NRO	NRO	0.05	0.05	<0.010	0.026	0.0030	<0.010	<0.010	<0.010
6010B	Silver	NRO	NRO	0.05	NRO	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
6010B	Tin	NRO	NRO	4.2	NRO	<0.040	0.0057	<0.040	<0.040	<0.040	<0.040
6010B	Vanadium	NRO	NRO	0.049	0.1	0.0034	0.0058	0.0030	0.0038	0.0040	0.0036
6010B	Zinc	NRO	NRO	5	10	<0.020	2.0	0.13	0.043	0.064	<0.020
6010B-Diss	Arsenic, Diss	NRO	NRO	0.05	0.2	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
6010B-Diss	Barium, Diss	NRO	NRO	2	2	0.076	0.094	0.046	0.053	0.081	0.057
6010B-Diss	Beryllium, Diss	NRO	NRO	0.004	0.5	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
6010B-Diss	Cadmium, Diss	NRO	NRO	0.005	0.05	<0.0020	<b>0.0067</b>	<0.0020	<0.0020	<0.0020	<0.0020
6010B-Diss	Chromium, Diss	NRO	NRO	0.1	1	0.0074	0.0027	0.0020	<0.010	<0.010	<0.010
6010B-Diss	Cobalt, Diss	NRO	NRO	1	1	0.00054	0.0021	<0.0050	<0.0050	<0.0050	0.00091
6010B-Diss	Copper, Diss	NRO	NRO	0.65	0.65	0.0028	0.63	0.15	0.015	0.0034	0.0016
6010B-Diss	Lead, Diss	NRO	NRO	0.0075	0.1	<0.0050	0.0050	<0.0050	<0.0050	<0.0050	<0.0050
6010B-Diss	Nickel, Diss	NRO	NRO	0.1	2	0.0025	0.075	0.012	0.0049	0.0013	0.0015
6010B-Diss	Selenium, Diss	NRO	NRO	0.05	0.05	<0.010	0.026	0.0029	0.0025	<0.010	<0.010
6010B-Diss	Silver, Diss	NRO	NRO	0.05	NRO	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
6010B-Diss	Tin, Diss	NRO	NRO	4.2	NRO	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
6010B-Diss	Vanadium, Diss	NRO	NRO	0.049	0.1	0.0037	0.0043	0.0029	0.0042	0.0037	0.0037
6010B-Diss	Zinc, Diss	NRO	NRO	5	10	0.012	2.0	0.13	0.027	0.027	<0.020
6020	Antimony	NRO	NRO	0.006	0.024	<0.0030	0.0043	0.0020	0.0029	<0.0030	<0.0030
6020	Thallium	NRO	NRO	0.002	0.02	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
6020-Diss	Antimony, Diss	NRO	NRO	0.006	0.024	<0.0030	0.0038	0.0016	0.0027	<0.0030	<0.0030
6020-Diss	Thallium, Diss	NRO	NRO	0.002	0.02	0.00044	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
7470A	Mercury	NRO	NRO	0.002	0.01	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
7470A-Diss	Mercury, Diss	NRO	NRO	0.002	0.01	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020

\* Exposure Routes for Soil Remediation Objectives (SROs) are based on

Title 35 Part 742 Tier 1 Appendix B Table E.

All results are mg/L unless otherwise requested.

Note 1: Results that are Bolded and Shaded indicate that the measured concentration exceeds any one of the SROs.

NRO = (No Remediation Objective) was provided in the tables.

\*\* The groundwater objective is equal to the Acceptable Detection Limit (ADL) for carcinogens.

**NRO/NRO\*\*** indicates that pH analysis was not requested and the values for Class I and Class II can not be provided.

Non TACO analytes are italicized and limits are based on the Illinois EPA Toxicity Assessment Unit May 1, 2007.

Additional analytes may have been requested to be reported but are not contained in the

non-TACO or TACO Tier 1 tables and are not evaluated.

Estimated results that are reported between the MDL and RL (J flags) may be reported but are not indicated with a flag.

Please refer to the report.

Results may have been achieved by a dilution and are not indicated with a flag. Please refer to the report.

3&4-Methylphenol do not separate analytically on the 8270 columns and are reported as combined analytes.

Xylenes, Total is a calculated result in TALs by adding the m,p-Xylene and o-Xylene results.

Total PCB is a calculated result in TALs by adding the individual PCB aroclors.

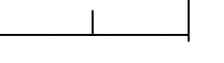
These footnotes are not an all inclusive list from Section 742 Appendix B Tier 1 Tables A through H.

For a complete detailed list see Section 742 Appendix B Tier 1 Tables A through H.

+ Reported according to the proposed amendments to TACO.



**Figure 1**  
**Groundwater Sample Locations and**  
**Groundwater Elevations, June 14, 2011**  
**Former Lake Shore Foundry**  
**653 S. Market St.**  
**Waukegan, IL 60085**

Scale (Approx.)  
  
 0 50ft.

N

<b>Deigan &amp; Associates</b>		<b>BORING NUMBER</b>	<b>MW-05</b>	
PROJECT Former Lake Shore Foundry LOCATION Waukegan, IL TOTAL DEPTH 20.0 ft. TOC ELEV. 590.41 ft. COMPANY CS Drilling DRILLER Mark and Dan LOCATION 42° 20' 49.8" N 87° 49' 36.1" W COMMENTS		PROJECT NO. BOREHOLE DIA. 6.25 in. DEPTH TO WATER : N/A DRILLING METHOD GeoProbe DATE DRILLED April 21, 2011 ENGINEER Brian Morin		
<b>Depth (ft)</b>	<b>Well Record</b>	<b>Graphic Log</b>	<b>Description</b>	
			<b>Soil Classification</b>	
			<b>Sample</b>	
			Int. USCS	
0			Brown clay fill to 1.0 ft. Moist, Soft; Concrete fill to 4.0 ft. PID = ND Recovery = 48"	OH
2				
4			Concrete fill to 8.0 ft. PID = ND Recovery = 48"	
6				
8			Concrete fill to 12.0 ft. PID = ND Recovery = 48"	
10				
12			Concrete fill to 15.0 ft.; Gray sand with trace of small gravel to 16.0 ft. Moist. Medium to coarse grain. PID = ND Recovery = 48"	SW
14				
16			Gray sand with trace of small gravel to 17.0 ft. Moist. Medium to Coarse grain; Gray silty clay with trace of coarse sand and gravel to 20.0 ft. Wet. Stiff. PID = ND Recovery = 48"	SW CL
18				
20				
<b>Legend</b>		SILT	SILTY CLAY	SANDY CLAY LOAM
		SAND	LOAM	SILTY CLAY LOAM
		LOAMY SAND	SANDY LOAM	Organic Topsoil
		CLAY	SILT LOAM	Other
		SANDY CLAY	CLAY LOAM	
CC = Continuous Core		ST = Shelby Tube		GP = Geo-Probe
SS = Split Spoon		AS = Auger Sample		HSA = Hollow-Stem Auger



# Illinois Environmental Protection Agency

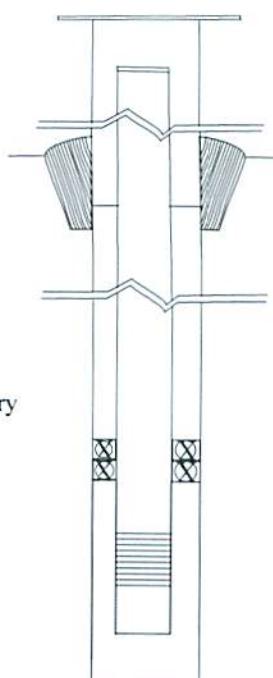
# Well Completion Report

Site Number: 0970355185County: LakeSite Name: Former Lake Shore FoundryWell #: MW-05

State

Plane Coordinate: X    Y    (or) Latitude: 42° 20' 49.8" Longitude: -87° 49' 36.1"Borehole #:   Surveyed by: Deigan and Associates, LLCIL Registration #: N/ADrilling Contractor: CS DrillingDriller: Mark and DanConsulting Firm: Deigan and Associates, LLCGeologist: Brian MorinDrilling Method: Hollow Stem AugerDrilling Fluid (Type): NoneLogged By: Brian MorinDate Started: 4/21/11 Date Finished: 4/21/11Report Form  
Completed By: Mike GrolloDate: 7/20/11

## ANNULAR SPACE DETAILS

Type of Surface Seal: Sacrete

### Elevations (MSL)\*      Depths (BGS)      (.01ft.)

<u>590.97</u>	<u>0</u>	Top of Protective Casing
<u>590.41</u>	<u>0.56</u>	Top of Riser Pipe
<u>590.97</u>	<u>0</u>	Ground Surface
<u>590.97</u>	<u>0</u>	Top of Annular Sealant
<u>579.94</u>	<u>11.03</u>	Static Water Level (After Completion)
<u>589.97</u>	<u>1.0</u>	Top of Seal
<u>582.97</u>	<u>8.0</u>	Top of Sand Pack
<u>581.17</u>	<u>9.8</u>	Top of Screen
<u>571.17</u>	<u>19.8</u>	Bottom of Screen
<u>570.97</u>	<u>20.0</u>	Bottom of Well
<u>570.97</u>	<u>20.0</u>	Bottom of Borehole

\* Referenced to a National Geodetic Datum

Type of Bentonite Seal - - Granular, Pelet, Slurry  
(Choose One)Installation Method: GravitySetting Time: 2 HoursType of Sand Pack: Uniform, Pre-baggedGrain Size: #5 (Sieve Size)Installation Method: GravityType of Backfill Material:     
(if applicable)Installation Method:   

## CASING MEASURMENTS

Diameter of Borehole (inches)	<u>6.25</u>
ID of Riser Pipe (inches)	<u>2.0</u>
Protective Casing Length (feet)	<u>0.6</u>
Riser Pipe Length (feet)	<u>10.0</u>
Bottom of Screen to End Cap (feet)	<u>0.2</u>
Screen Length (1 <sup>st</sup> slot to last slot) (feet)	<u>10.0</u>
Total Length of Casing (feet)	<u>20.0</u>
Screen Slot Size **	<u>0.125*</u>

\*\*Hand-Slotted Well Screens are Unacceptable

Protective Casing	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Above W.T.	SS304, SS316, PTFE, PVC, or Other
Riser Pipe Below W.T.	SS304, SS316, PTFE, PVC, or Other
Screen	SS304, SS316, PTFE, PVC, or Other

**ORDINANCE NO. 11-0-64**

**AN ORDINANCE PROHIBITING THE USE OF GROUNDWATER  
AS A POTABLE WATER SUPPLY BY THE INSTALLATION OR  
USE OF POTABLE WATER SUPPLY OR BY ANY OTHER  
METHOD WITHIN A DESIGNATED RESTRICTED  
GROUNDWATER ZONE**

WHEREAS, certain properties in the City of Waukegan, Illinois have been used over a period of time for commercial/industrial purposes; and

WHEREAS, because of said use, concentrations of certain chemical constituents in the groundwater beneath the City may exceed Class I groundwater quality standards for potable resources groundwater as set forth in 35 Illinois Administrative Code 620 or Tier 1 remediation objectives as set forth in 35 Illinois Administrative Code 742; and

WHEREAS, the City of Waukegan desires to limit potential threats to human health from groundwater contamination while facilitating the redevelopment and productive use of properties that are the source of said chemical constituents;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE  
CITY OF WAUKEGAN, ILLINOIS**

Section 1: Prohibition.

On and after the effective date of this Ordinance, no Person shall use or attempt to use as a potable water supply groundwater from within an area designated as a Restricted Groundwater Zone, within the corporate limits of the City of Waukegan, as a potable water supply, by the installation or drilling of wells or by any other method.

Section 2: Restricted Groundwater Zone.

The following area shall be designated a Restricted Groundwater Zone:

- i) Western Boundary: a line paralleling the western boundary of the parcel of land identified by Permanent Index Number 08-28-400-044, and set a distance of 400 feet west of said western parcel boundary;
- ii) Southern Boundary: the southern boundary of the Waukegan City Limits;
- iii) Northern Boundary: the centerline of Water Street extended; and
- iv) Eastern Boundary: the Lake Michigan waterline;

all as more specifically depicted in the attached diagram.

Section 3: Definitions.

For purposes of this Ordinance the following definitions shall apply:

1. "Person" is any individual, partnership, co-partnership, firm, company, limited liability company, corporation, association, joint stock company, trust, estate, the City of Waukegan and any of its or their legal representatives, agents or assigns.
2. "Potable Water" is any water used for human or domestic consumption, including. But not limited to, water used for drinking, bathing, swimming, washing dishes, preparing foods, watering lawns, or watering gardens in which produce intended for human consumption is grown.
3. "Restricted Groundwater Zone" is that areal extent of "groundwater," within the City limits, and around the "source" of a "release" of petroleum," "pesticides" or "regulated substance," as those words are defined in the Illinois Environmental Protection Act, 415 ILCS 5/1, et seq., ("the Act"), which has been designated by the City Council by this Ordinance. That area shall extend, at a minimum, to any area within the measured and modeled extent of groundwater contamination above what would otherwise be the applicable Tier 1 groundwater remediation objectives at 35 Ill.Admin.Code 742.

Section 4: Penalties.

Any person violating the provisions of this Ordinance shall be subject to a fine of up to \$750.00 for each violation. Each day of the continued existence or use of a prohibited well shall be considered a separate violation.

Section 5: Repealer.

All ordinances, resolutions, orders, or parts thereof, which conflict with the provisions of this Ordinance, to the extent of such conflict, are hereby repealed.

Section 6: Severability.

If any section, paragraph, clause or provision of this Ordinance is held invalid, the invalidity of such section, paragraph, clause or provision shall not affect any of the other provisions of this Ordinance.

Section 6: Effective Date.

This ordinance shall be in full force and effect from and after its passage, approval and publication as provided by law.

Robert Sabonjian  
MAYOR ROBERT G. SABONJIAN

ATTEST:

Wayne Motley  
WAYNE MOTLEY, City Clerk

Presented and read at a regular meeting of the Waukegan City Council on the 6th day of June, 2011.

Passed and approved at a regular meeting of the Waukegan City Council on the 6th day of June, 2011.

ROLL CALL: Aldermen Rivera, Cunningham, Koncan, Moisio, Beadling, Newsome, TenPas, May, and Valko

AYES: Aldermen Rivera, Cunningham, Koncan, Moisio, Beadling, Newsome, TenPas, May, and Valko

NAYS: None

ABSENT: None

ABSTAIN: None



**City of Waukegan  
South Lakefront  
Groundwater Use  
Restriction Ordinance Area**

**(East-West: Lake Michigan to 400  
ft. West of Market St.)  
(North -South: Water St. to 10th St.)**



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-35392-1

TestAmerica Sample Delivery Group: 500-35392-1

Client Project/Site: Former Lake Shore Foundry

For:

Deigan & Associates

1801 Sheridan Rd.

Suite 103

North Chicago, Illinois 60064

Attn: Gary Deigan

Authorized for release by:

06/28/2011 11:00:11 AM

Richard Wright

Project Manager II

[richard.wright@testamericainc.com](mailto:richard.wright@testamericainc.com)

### LINKS

Review your project  
results through

TotalAccess

Have a Question?

Ask  
The  
Expert

Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all 2003 NELAC requirements for accredited parameters, exceptions are noted in this report. Pursuant to NELAC, this report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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## Case Narrative

Client: Deigan & Associates  
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
SDG: 500-35392-1

### Job ID: 500-35392-1

Laboratory: TestAmerica Chicago

#### Narrative

Job Narrative  
500-35392-1

#### Comments

No additional comments.

#### Receipt

All samples were received in good condition within temperature requirements.

#### Metals

Method(s) 7470A: The continuing calibration verification (CCV) at line 29 in AD batch 116852 recovered above the upper control limit for Hg. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other analytical or quality issues were noted.

#### General Chemistry

No analytical or quality issues were noted.

# Detection Summary

Client: Deigan & Associates  
 Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
 SDG: 500-35392-1

## Client Sample ID: LSF MW01

Lab Sample ID: 500-35392-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.080		0.010	0.00084	mg/L	1	6010B		Total/NA
Nickel	0.0012	J B	0.010	0.00081	mg/L	1	6010B		Total/NA
Vanadium	0.0034	J	0.0050	0.00071	mg/L	1	6010B		Total/NA
Barium	0.076		0.010	0.00084	mg/L	1	6010B		Dissolved
Chromium	0.0074	J	0.010	0.0015	mg/L	1	6010B		Dissolved
Cobalt	0.00054	J	0.0050	0.00043	mg/L	1	6010B		Dissolved
Copper	0.0028	J	0.010	0.0014	mg/L	1	6010B		Dissolved
Nickel	0.0025	J B	0.010	0.00081	mg/L	1	6010B		Dissolved
Vanadium	0.0037	J	0.0050	0.00071	mg/L	1	6010B		Dissolved
Zinc	0.012	J	0.020	0.0066	mg/L	1	6010B		Dissolved
Thallium	0.00044	J	0.0020	0.00036	mg/L	1	6020		Dissolved
pH	6.89	HF	0.200	0.200	SU	1	9040B		Total/NA

## Client Sample ID: LSF MW02

Lab Sample ID: 500-35392-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.10		0.010	0.00084	mg/L	1	6010B		Total/NA
Cadmium	0.0072		0.0020	0.00036	mg/L	1	6010B		Total/NA
Chromium	0.0050	J	0.010	0.0015	mg/L	1	6010B		Total/NA
Cobalt	0.0026	J	0.0050	0.00043	mg/L	1	6010B		Total/NA
Copper	0.76		0.010	0.0014	mg/L	1	6010B		Total/NA
Lead	0.025		0.0050	0.0020	mg/L	1	6010B		Total/NA
Nickel	0.078	B	0.010	0.00081	mg/L	1	6010B		Total/NA
Selenium	0.026		0.010	0.0025	mg/L	1	6010B		Total/NA
Tin	0.0057	J	0.040	0.0035	mg/L	1	6010B		Total/NA
Vanadium	0.0058		0.0050	0.00071	mg/L	1	6010B		Total/NA
Zinc	2.0		0.020	0.0066	mg/L	1	6010B		Total/NA
Barium	0.094		0.010	0.00084	mg/L	1	6010B		Dissolved
Cadmium	0.0067		0.0020	0.00036	mg/L	1	6010B		Dissolved
Chromium	0.0027	J	0.010	0.0015	mg/L	1	6010B		Dissolved
Cobalt	0.0021	J	0.0050	0.00043	mg/L	1	6010B		Dissolved
Copper	0.63		0.010	0.0014	mg/L	1	6010B		Dissolved
Lead	0.0050		0.0050	0.0020	mg/L	1	6010B		Dissolved
Nickel	0.075	B	0.010	0.00081	mg/L	1	6010B		Dissolved
Selenium	0.026		0.010	0.0025	mg/L	1	6010B		Dissolved
Vanadium	0.0043	J	0.0050	0.00071	mg/L	1	6010B		Dissolved
Zinc	2.0		0.020	0.0066	mg/L	1	6010B		Dissolved
Antimony	0.0043	B	0.0030	0.00063	mg/L	1	6020		Total Recovery
Antimony	0.0038	B	0.0030	0.00063	mg/L	1	6020		Dissolved
pH	7.09	HF	0.200	0.200	SU	1	9040B		Total/NA

## Client Sample ID: LSF MW03

Lab Sample ID: 500-35392-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.049		0.010	0.00084	mg/L	1	6010B		Total/NA
Copper	0.15		0.010	0.0014	mg/L	1	6010B		Total/NA
Nickel	0.012	B	0.010	0.00081	mg/L	1	6010B		Total/NA
Selenium	0.0030	J	0.010	0.0025	mg/L	1	6010B		Total/NA
Vanadium	0.0030	J	0.0050	0.00071	mg/L	1	6010B		Total/NA
Zinc	0.13		0.020	0.0066	mg/L	1	6010B		Total/NA
Barium	0.046		0.010	0.00084	mg/L	1	6010B		Dissolved
Chromium	0.0020	J	0.010	0.0015	mg/L	1	6010B		Dissolved
Copper	0.15		0.010	0.0014	mg/L	1	6010B		Dissolved
Nickel	0.012	B	0.010	0.00081	mg/L	1	6010B		Dissolved

TestAmerica Chicago

# Detection Summary

Client: Deigan & Associates

Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1

SDG: 500-35392-1

## Client Sample ID: LSF MW03 (Continued)

Lab Sample ID: 500-35392-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Selenium	0.0029	J	0.010	0.0025	mg/L	1	6010B		Dissolved
Vanadium	0.0029	J	0.0050	0.00071	mg/L	1	6010B		Dissolved
Zinc	0.13		0.020	0.0066	mg/L	1	6010B		Dissolved
Antimony	0.0020	J B	0.0030	0.00063	mg/L	1	6020		Total Recovery
Antimony	0.0016	J B	0.0030	0.00063	mg/L	1	6020		Dissolved
pH	7.40	HF	0.200	0.200	SU	1	9040B		Total/NA

## Client Sample ID: LSF MW04

Lab Sample ID: 500-35392-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.075		0.010	0.00084	mg/L	1	6010B		Total/NA
Chromium	0.0018	J	0.010	0.0015	mg/L	1	6010B		Total/NA
Copper	0.030		0.010	0.0014	mg/L	1	6010B		Total/NA
Nickel	0.0050	J B	0.010	0.00081	mg/L	1	6010B		Total/NA
Vanadium	0.0038	J	0.0050	0.00071	mg/L	1	6010B		Total/NA
Zinc	0.043		0.020	0.0066	mg/L	1	6010B		Total/NA
Barium	0.053		0.010	0.00084	mg/L	1	6010B		Dissolved
Copper	0.015		0.010	0.0014	mg/L	1	6010B		Dissolved
Nickel	0.0049	J B	0.010	0.00081	mg/L	1	6010B		Dissolved
Selenium	0.0025	J	0.010	0.0025	mg/L	1	6010B		Dissolved
Vanadium	0.0042	J	0.0050	0.00071	mg/L	1	6010B		Dissolved
Zinc	0.027		0.020	0.0066	mg/L	1	6010B		Dissolved
Antimony	0.0029	J B	0.0030	0.00063	mg/L	1	6020		Total Recovery
Antimony	0.0027	J B	0.0030	0.00063	mg/L	1	6020		Dissolved
pH	7.36	HF	0.200	0.200	SU	1	9040B		Total/NA

## Client Sample ID: LSF MW05

Lab Sample ID: 500-35392-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.11		0.010	0.00084	mg/L	1	6010B		Total/NA
Copper	0.011		0.010	0.0014	mg/L	1	6010B		Total/NA
Lead	0.0034	J	0.0050	0.0020	mg/L	1	6010B		Total/NA
Nickel	0.0015	J B	0.010	0.00081	mg/L	1	6010B		Total/NA
Vanadium	0.0040	J	0.0050	0.00071	mg/L	1	6010B		Total/NA
Zinc	0.064		0.020	0.0066	mg/L	1	6010B		Total/NA
Barium	0.081		0.010	0.00084	mg/L	1	6010B		Dissolved
Copper	0.0034	J	0.010	0.0014	mg/L	1	6010B		Dissolved
Nickel	0.0013	J B	0.010	0.00081	mg/L	1	6010B		Dissolved
Vanadium	0.0037	J	0.0050	0.00071	mg/L	1	6010B		Dissolved
Zinc	0.027		0.020	0.0066	mg/L	1	6010B		Dissolved
pH	7.17	HF	0.200	0.200	SU	1	9040B		Total/NA

## Client Sample ID: EXISTING AMPSKY WELL

Lab Sample ID: 500-35392-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.057		0.010	0.00084	mg/L	1	6010B		Total/NA
Nickel	0.0014	J B	0.010	0.00081	mg/L	1	6010B		Total/NA
Vanadium	0.0036	J	0.0050	0.00071	mg/L	1	6010B		Total/NA
Barium	0.057		0.010	0.00084	mg/L	1	6010B		Dissolved
Cobalt	0.00091	J	0.0050	0.00043	mg/L	1	6010B		Dissolved
Copper	0.0016	J	0.010	0.0014	mg/L	1	6010B		Dissolved
Nickel	0.0015	J B	0.010	0.00081	mg/L	1	6010B		Dissolved
Vanadium	0.0037	J	0.0050	0.00071	mg/L	1	6010B		Dissolved
pH	7.15	HF	0.200	0.200	SU	1	9040B		Total/NA

TestAmerica Chicago

## Method Summary

Client: Deigan & Associates  
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
SDG: 500-35392-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL CHI
6020	Metals (ICP/MS)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
9040B	pH	SW846	TAL CHI

### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

### Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

## Sample Summary

Client: Deigan & Associates  
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-35392-1	LSF MW01	Water	06/14/11 14:00	06/15/11 10:30
500-35392-2	LSF MW02	Water	06/14/11 10:15	06/15/11 10:30
500-35392-3	LSF MW03	Water	06/14/11 13:00	06/15/11 10:30
500-35392-4	LSF MW04	Water	06/14/11 00:15	06/15/11 10:30
500-35392-5	LSF MW05	Water	06/14/11 11:15	06/15/11 10:30
500-35392-6	EXISTING AMPSKY WELL	Water	06/14/11 15:00	06/15/11 10:30

# Client Sample Results

Client: Deigan & Associates  
 Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
 SDG: 500-35392-1

## Client Sample ID: LSF MW01

## Lab Sample ID: 500-35392-1

Matrix: Water

Date Collected: 06/14/11 14:00  
 Date Received: 06/15/11 10:30

### Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 01:21	1
<b>Barium</b>	<b>0.080</b>		0.010	0.00084	mg/L		06/16/11 16:20	06/18/11 01:21	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		06/16/11 16:20	06/18/11 01:21	1
Cadmium	<0.0020		0.0020	0.00036	mg/L		06/16/11 16:20	06/18/11 01:21	1
Chromium	<0.010		0.010	0.0015	mg/L		06/16/11 16:20	06/18/11 01:21	1
Cobalt	<0.0050		0.0050	0.00043	mg/L		06/16/11 16:20	06/18/11 01:21	1
Copper	<0.010		0.010	0.0014	mg/L		06/16/11 16:20	06/18/11 01:21	1
Lead	<0.0050		0.0050	0.0020	mg/L		06/16/11 16:20	06/18/11 01:21	1
<b>Nickel</b>	<b>0.0012 J B</b>		0.010	0.00081	mg/L		06/16/11 16:20	06/18/11 01:21	1
Selenium	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 01:21	1
Silver	<0.0050		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 01:21	1
Tin	<0.040		0.040	0.0035	mg/L		06/16/11 16:20	06/18/11 01:21	1
<b>Vanadium</b>	<b>0.0034 J</b>		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 01:21	1
Zinc	<0.020		0.020	0.0066	mg/L		06/16/11 16:20	06/18/11 01:21	1

### Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 01:27	1
<b>Barium</b>	<b>0.076</b>		0.010	0.00084	mg/L		06/16/11 16:20	06/18/11 01:27	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		06/16/11 16:20	06/18/11 01:27	1
Cadmium	<0.0020		0.0020	0.00036	mg/L		06/16/11 16:20	06/18/11 01:27	1
<b>Chromium</b>	<b>0.0074 J</b>		0.010	0.0015	mg/L		06/16/11 16:20	06/18/11 01:27	1
<b>Cobalt</b>	<b>0.00054 J</b>		0.0050	0.00043	mg/L		06/16/11 16:20	06/18/11 01:27	1
<b>Copper</b>	<b>0.0028 J</b>		0.010	0.0014	mg/L		06/16/11 16:20	06/18/11 01:27	1
Lead	<0.0050		0.0050	0.0020	mg/L		06/16/11 16:20	06/18/11 01:27	1
<b>Nickel</b>	<b>0.0025 J B</b>		0.010	0.00081	mg/L		06/16/11 16:20	06/18/11 01:27	1
Selenium	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 01:27	1
Silver	<0.0050		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 01:27	1
Tin	<0.040		0.040	0.0035	mg/L		06/16/11 16:20	06/18/11 01:27	1
<b>Vanadium</b>	<b>0.0037 J</b>		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 01:27	1
Zinc	<b>0.012 J</b>		0.020	0.0066	mg/L		06/16/11 16:20	06/18/11 01:27	1

### Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.00063	mg/L		06/17/11 07:50	06/27/11 17:06	1
Thallium	<0.0020		0.0020	0.00036	mg/L		06/17/11 07:50	06/23/11 18:19	1

### Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.00063	mg/L		06/17/11 07:50	06/27/11 17:19	1
<b>Thallium</b>	<b>0.00044 J</b>		0.0020	0.00036	mg/L		06/17/11 07:50	06/23/11 18:36	1

### Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020	^	0.00020	0.000051	mg/L		06/16/11 11:22	06/17/11 10:39	1

### Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020	^	0.00020	0.000051	mg/L		06/16/11 11:22	06/17/11 10:41	1

# Client Sample Results

Client: Deigan & Associates  
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
SDG: 500-35392-1

**Client Sample ID: LSF MW01**

**Lab Sample ID: 500-35392-1**

Date Collected: 06/14/11 14:00  
Date Received: 06/15/11 10:30

Matrix: Water

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	6.89	HF	0.200	0.200	SU			06/15/11 14:00	1

# Client Sample Results

Client: Deigan & Associates  
 Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
 SDG: 500-35392-1

## Client Sample ID: LSF MW02

## Lab Sample ID: 500-35392-2

Matrix: Water

Date Collected: 06/14/11 10:15  
 Date Received: 06/15/11 10:30

### Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 01:34	1
<b>Barium</b>	<b>0.10</b>		0.010	0.00084	mg/L		06/16/11 16:20	06/18/11 01:34	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		06/16/11 16:20	06/18/11 01:34	1
<b>Cadmium</b>	<b>0.0072</b>		0.0020	0.00036	mg/L		06/16/11 16:20	06/18/11 01:34	1
<b>Chromium</b>	<b>0.0050 J</b>		0.010	0.0015	mg/L		06/16/11 16:20	06/18/11 01:34	1
<b>Cobalt</b>	<b>0.0026 J</b>		0.0050	0.00043	mg/L		06/16/11 16:20	06/18/11 01:34	1
<b>Copper</b>	<b>0.76</b>		0.010	0.0014	mg/L		06/16/11 16:20	06/18/11 01:34	1
<b>Lead</b>	<b>0.025</b>		0.0050	0.0020	mg/L		06/16/11 16:20	06/18/11 01:34	1
<b>Nickel</b>	<b>0.078 B</b>		0.010	0.00081	mg/L		06/16/11 16:20	06/18/11 01:34	1
<b>Selenium</b>	<b>0.026</b>		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 01:34	1
Silver	<0.0050		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 01:34	1
<b>Tin</b>	<b>0.0057 J</b>		0.040	0.0035	mg/L		06/16/11 16:20	06/18/11 01:34	1
<b>Vanadium</b>	<b>0.0058</b>		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 01:34	1
<b>Zinc</b>	<b>2.0</b>		0.020	0.0066	mg/L		06/16/11 16:20	06/18/11 01:34	1

### Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 01:40	1
<b>Barium</b>	<b>0.094</b>		0.010	0.00084	mg/L		06/16/11 16:20	06/18/11 01:40	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		06/16/11 16:20	06/18/11 01:40	1
<b>Cadmium</b>	<b>0.0067</b>		0.0020	0.00036	mg/L		06/16/11 16:20	06/18/11 01:40	1
<b>Chromium</b>	<b>0.0027 J</b>		0.010	0.0015	mg/L		06/16/11 16:20	06/18/11 01:40	1
<b>Cobalt</b>	<b>0.0021 J</b>		0.0050	0.00043	mg/L		06/16/11 16:20	06/18/11 01:40	1
<b>Copper</b>	<b>0.63</b>		0.010	0.0014	mg/L		06/16/11 16:20	06/18/11 01:40	1
<b>Lead</b>	<b>0.0050</b>		0.0050	0.0020	mg/L		06/16/11 16:20	06/18/11 01:40	1
<b>Nickel</b>	<b>0.075 B</b>		0.010	0.00081	mg/L		06/16/11 16:20	06/18/11 01:40	1
<b>Selenium</b>	<b>0.026</b>		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 01:40	1
Silver	<0.0050		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 01:40	1
Tin	<0.040		0.040	0.0035	mg/L		06/16/11 16:20	06/18/11 01:40	1
<b>Vanadium</b>	<b>0.0043 J</b>		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 01:40	1
<b>Zinc</b>	<b>2.0</b>		0.020	0.0066	mg/L		06/16/11 16:20	06/18/11 01:40	1

### Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.0043 B</b>		0.0030	0.00063	mg/L		06/17/11 07:50	06/27/11 19:22	1
Thallium	<0.0020		0.0020	0.00036	mg/L		06/17/11 07:50	06/23/11 18:38	1

### Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.0038 B</b>		0.0030	0.00063	mg/L		06/17/11 07:50	06/27/11 19:24	1
Thallium	<0.0020		0.0020	0.00036	mg/L		06/17/11 07:50	06/23/11 18:40	1

### Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020	^	0.00020	0.000051	mg/L		06/16/11 11:22	06/17/11 10:43	1

### Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020	^	0.00020	0.000051	mg/L		06/16/11 11:22	06/17/11 10:45	1

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# Client Sample Results

Client: Deigan & Associates  
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
SDG: 500-35392-1

**Client Sample ID: LSF MW02**

**Lab Sample ID: 500-35392-2**

Date Collected: 06/14/11 10:15  
Date Received: 06/15/11 10:30

Matrix: Water

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.09	HF	0.200	0.200	SU			06/15/11 14:01	1

# Client Sample Results

Client: Deigan & Associates  
 Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
 SDG: 500-35392-1

## Client Sample ID: LSF MW03

## Lab Sample ID: 500-35392-3

Matrix: Water

Date Collected: 06/14/11 13:00  
 Date Received: 06/15/11 10:30

### Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 01:46	1
<b>Barium</b>	<b>0.049</b>		0.010	0.00084	mg/L		06/16/11 16:20	06/18/11 01:46	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		06/16/11 16:20	06/18/11 01:46	1
Cadmium	<0.0020		0.0020	0.00036	mg/L		06/16/11 16:20	06/18/11 01:46	1
Chromium	<0.010		0.010	0.0015	mg/L		06/16/11 16:20	06/18/11 01:46	1
Cobalt	<0.0050		0.0050	0.00043	mg/L		06/16/11 16:20	06/18/11 01:46	1
<b>Copper</b>	<b>0.15</b>		0.010	0.0014	mg/L		06/16/11 16:20	06/18/11 01:46	1
Lead	<0.0050		0.0050	0.0020	mg/L		06/16/11 16:20	06/18/11 01:46	1
<b>Nickel</b>	<b>0.012</b> B		0.010	0.00081	mg/L		06/16/11 16:20	06/18/11 01:46	1
<b>Selenium</b>	<b>0.0030</b> J		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 01:46	1
Silver	<0.0050		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 01:46	1
Tin	<0.040		0.040	0.0035	mg/L		06/16/11 16:20	06/18/11 01:46	1
<b>Vanadium</b>	<b>0.0030</b> J		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 01:46	1
Zinc	<b>0.13</b>		0.020	0.0066	mg/L		06/16/11 16:20	06/18/11 01:46	1

### Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 02:32	1
<b>Barium</b>	<b>0.046</b>		0.010	0.00084	mg/L		06/16/11 16:20	06/18/11 02:32	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		06/16/11 16:20	06/18/11 02:32	1
Cadmium	<0.0020		0.0020	0.00036	mg/L		06/16/11 16:20	06/18/11 02:32	1
<b>Chromium</b>	<b>0.0020</b> J		0.010	0.0015	mg/L		06/16/11 16:20	06/18/11 02:32	1
Cobalt	<0.0050		0.0050	0.00043	mg/L		06/16/11 16:20	06/18/11 02:32	1
<b>Copper</b>	<b>0.15</b>		0.010	0.0014	mg/L		06/16/11 16:20	06/18/11 02:32	1
Lead	<0.0050		0.0050	0.0020	mg/L		06/16/11 16:20	06/18/11 02:32	1
<b>Nickel</b>	<b>0.012</b> B		0.010	0.00081	mg/L		06/16/11 16:20	06/18/11 02:32	1
<b>Selenium</b>	<b>0.0029</b> J		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 02:32	1
Silver	<0.0050		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 02:32	1
Tin	<0.040		0.040	0.0035	mg/L		06/16/11 16:20	06/18/11 02:32	1
<b>Vanadium</b>	<b>0.0029</b> J		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 02:32	1
Zinc	<b>0.13</b>		0.020	0.0066	mg/L		06/16/11 16:20	06/18/11 02:32	1

### Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.0020</b> J B		0.0030	0.00063	mg/L		06/17/11 07:50	06/27/11 19:27	1
Thallium	<0.0020		0.0020	0.00036	mg/L		06/17/11 07:50	06/23/11 18:42	1

### Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.0016</b> J B		0.0030	0.00063	mg/L		06/17/11 07:50	06/27/11 19:29	1
Thallium	<0.0020		0.0020	0.00036	mg/L		06/17/11 07:50	06/23/11 18:45	1

### Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020	^	0.00020	0.000051	mg/L		06/16/11 11:22	06/17/11 10:46	1

### Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020	^	0.00020	0.000051	mg/L		06/16/11 11:22	06/17/11 10:52	1

# Client Sample Results

Client: Deigan & Associates  
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
SDG: 500-35392-1

**Client Sample ID: LSF MW03**

**Lab Sample ID: 500-35392-3**

Date Collected: 06/14/11 13:00  
Date Received: 06/15/11 10:30

Matrix: Water

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.40	HF	0.200	0.200	SU			06/15/11 14:02	1

# Client Sample Results

Client: Deigan & Associates  
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
SDG: 500-35392-1

## Client Sample ID: LSF MW04

## Lab Sample ID: 500-35392-4

Matrix: Water

Date Collected: 06/14/11 00:15  
Date Received: 06/15/11 10:30

### Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 02:38	1
<b>Barium</b>	<b>0.075</b>		0.010	0.00084	mg/L		06/16/11 16:20	06/18/11 02:38	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		06/16/11 16:20	06/18/11 02:38	1
Cadmium	<0.0020		0.0020	0.00036	mg/L		06/16/11 16:20	06/18/11 02:38	1
<b>Chromium</b>	<b>0.0018 J</b>		0.010	0.0015	mg/L		06/16/11 16:20	06/18/11 02:38	1
Cobalt	<0.0050		0.0050	0.00043	mg/L		06/16/11 16:20	06/18/11 02:38	1
<b>Copper</b>	<b>0.030</b>		0.010	0.0014	mg/L		06/16/11 16:20	06/18/11 02:38	1
Lead	<0.0050		0.0050	0.0020	mg/L		06/16/11 16:20	06/18/11 02:38	1
<b>Nickel</b>	<b>0.0050 J B</b>		0.010	0.00081	mg/L		06/16/11 16:20	06/18/11 02:38	1
Selenium	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 02:38	1
Silver	<0.0050		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 02:38	1
Tin	<0.040		0.040	0.0035	mg/L		06/16/11 16:20	06/18/11 02:38	1
<b>Vanadium</b>	<b>0.0038 J</b>		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 02:38	1
Zinc	<b>0.043</b>		0.020	0.0066	mg/L		06/16/11 16:20	06/18/11 02:38	1

### Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 02:44	1
<b>Barium</b>	<b>0.053</b>		0.010	0.00084	mg/L		06/16/11 16:20	06/18/11 02:44	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		06/16/11 16:20	06/18/11 02:44	1
Cadmium	<0.0020		0.0020	0.00036	mg/L		06/16/11 16:20	06/18/11 02:44	1
Chromium	<0.010		0.010	0.0015	mg/L		06/16/11 16:20	06/18/11 02:44	1
Cobalt	<0.0050		0.0050	0.00043	mg/L		06/16/11 16:20	06/18/11 02:44	1
<b>Copper</b>	<b>0.015</b>		0.010	0.0014	mg/L		06/16/11 16:20	06/18/11 02:44	1
Lead	<0.0050		0.0050	0.0020	mg/L		06/16/11 16:20	06/18/11 02:44	1
<b>Nickel</b>	<b>0.0049 J B</b>		0.010	0.00081	mg/L		06/16/11 16:20	06/18/11 02:44	1
<b>Selenium</b>	<b>0.0025 J</b>		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 02:44	1
Silver	<0.0050		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 02:44	1
Tin	<0.040		0.040	0.0035	mg/L		06/16/11 16:20	06/18/11 02:44	1
<b>Vanadium</b>	<b>0.0042 J</b>		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 02:44	1
Zinc	<b>0.027</b>		0.020	0.0066	mg/L		06/16/11 16:20	06/18/11 02:44	1

### Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.0029 J B</b>		0.0030	0.00063	mg/L		06/17/11 07:50	06/27/11 19:32	1
Thallium	<0.0020		0.0020	0.00036	mg/L		06/17/11 07:50	06/23/11 18:47	1

### Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Antimony</b>	<b>0.0027 J B</b>		0.0030	0.00063	mg/L		06/17/11 07:50	06/27/11 19:35	1
Thallium	<0.0020		0.0020	0.00036	mg/L		06/17/11 07:50	06/23/11 18:49	1

### Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020	^	0.00020	0.000051	mg/L		06/16/11 11:22	06/17/11 10:54	1

### Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020	^	0.00020	0.000051	mg/L		06/16/11 11:22	06/17/11 10:55	1

# Client Sample Results

Client: Deigan & Associates  
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
SDG: 500-35392-1

**Client Sample ID: LSF MW04**

**Lab Sample ID: 500-35392-4**

Date Collected: 06/14/11 00:15

Matrix: Water

Date Received: 06/15/11 10:30

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.36	HF	0.200	0.200	SU			06/15/11 14:03	1

# Client Sample Results

Client: Deigan & Associates  
 Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
 SDG: 500-35392-1

## Client Sample ID: LSF MW05

Lab Sample ID: 500-35392-5

Matrix: Water

Date Collected: 06/14/11 11:15  
 Date Received: 06/15/11 10:30

### Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 02:51	1
<b>Barium</b>	<b>0.11</b>		0.010	0.00084	mg/L		06/16/11 16:20	06/18/11 02:51	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		06/16/11 16:20	06/18/11 02:51	1
Cadmium	<0.0020		0.0020	0.00036	mg/L		06/16/11 16:20	06/18/11 02:51	1
Chromium	<0.010		0.010	0.0015	mg/L		06/16/11 16:20	06/18/11 02:51	1
Cobalt	<0.0050		0.0050	0.00043	mg/L		06/16/11 16:20	06/18/11 02:51	1
<b>Copper</b>	<b>0.011</b>		0.010	0.0014	mg/L		06/16/11 16:20	06/18/11 02:51	1
<b>Lead</b>	<b>0.0034 J</b>		0.0050	0.0020	mg/L		06/16/11 16:20	06/18/11 02:51	1
<b>Nickel</b>	<b>0.0015 J B</b>		0.010	0.00081	mg/L		06/16/11 16:20	06/18/11 02:51	1
Selenium	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 02:51	1
Silver	<0.0050		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 02:51	1
Tin	<0.040		0.040	0.0035	mg/L		06/16/11 16:20	06/18/11 02:51	1
<b>Vanadium</b>	<b>0.0040 J</b>		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 02:51	1
<b>Zinc</b>	<b>0.064</b>		0.020	0.0066	mg/L		06/16/11 16:20	06/18/11 02:51	1

### Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 02:57	1
<b>Barium</b>	<b>0.081</b>		0.010	0.00084	mg/L		06/16/11 16:20	06/18/11 02:57	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		06/16/11 16:20	06/18/11 02:57	1
Cadmium	<0.0020		0.0020	0.00036	mg/L		06/16/11 16:20	06/18/11 02:57	1
Chromium	<0.010		0.010	0.0015	mg/L		06/16/11 16:20	06/18/11 02:57	1
Cobalt	<0.0050		0.0050	0.00043	mg/L		06/16/11 16:20	06/18/11 02:57	1
<b>Copper</b>	<b>0.0034 J</b>		0.010	0.0014	mg/L		06/16/11 16:20	06/18/11 02:57	1
Lead	<0.0050		0.0050	0.0020	mg/L		06/16/11 16:20	06/18/11 02:57	1
<b>Nickel</b>	<b>0.0013 J B</b>		0.010	0.00081	mg/L		06/16/11 16:20	06/18/11 02:57	1
Selenium	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 02:57	1
Silver	<0.0050		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 02:57	1
Tin	<0.040		0.040	0.0035	mg/L		06/16/11 16:20	06/18/11 02:57	1
<b>Vanadium</b>	<b>0.0037 J</b>		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 02:57	1
<b>Zinc</b>	<b>0.027</b>		0.020	0.0066	mg/L		06/16/11 16:20	06/18/11 02:57	1

### Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.00063	mg/L		06/17/11 07:50	06/27/11 19:37	1
Thallium	<0.0020		0.0020	0.00036	mg/L		06/17/11 07:50	06/23/11 18:52	1

### Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.00063	mg/L		06/17/11 07:50	06/27/11 19:40	1
Thallium	<0.0020		0.0020	0.00036	mg/L		06/17/11 07:50	06/23/11 18:54	1

### Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020	^	0.00020	0.000051	mg/L		06/16/11 11:22	06/17/11 10:57	1

### Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020	^	0.00020	0.000051	mg/L		06/16/11 11:22	06/17/11 10:59	1

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# Client Sample Results

Client: Deigan & Associates  
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
SDG: 500-35392-1

**Client Sample ID: LSF MW05**

**Lab Sample ID: 500-35392-5**

Date Collected: 06/14/11 11:15  
Date Received: 06/15/11 10:30

Matrix: Water

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.17	HF	0.200	0.200	SU			06/15/11 14:05	1

# Client Sample Results

Client: Deigan & Associates  
 Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
 SDG: 500-35392-1

## Client Sample ID: EXISTING AMPSKY WELL

Lab Sample ID: 500-35392-6

Matrix: Water

Date Collected: 06/14/11 15:00  
 Date Received: 06/15/11 10:30

### Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 03:03	1
<b>Barium</b>	<b>0.057</b>		0.010	0.00084	mg/L		06/16/11 16:20	06/18/11 03:03	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		06/16/11 16:20	06/18/11 03:03	1
Cadmium	<0.0020		0.0020	0.00036	mg/L		06/16/11 16:20	06/18/11 03:03	1
Chromium	<0.010		0.010	0.0015	mg/L		06/16/11 16:20	06/18/11 03:03	1
Cobalt	<0.0050		0.0050	0.00043	mg/L		06/16/11 16:20	06/18/11 03:03	1
Copper	<0.010		0.010	0.0014	mg/L		06/16/11 16:20	06/18/11 03:03	1
Lead	<0.0050		0.0050	0.0020	mg/L		06/16/11 16:20	06/18/11 03:03	1
<b>Nickel</b>	<b>0.0014 J B</b>		0.010	0.00081	mg/L		06/16/11 16:20	06/18/11 03:03	1
Selenium	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 03:03	1
Silver	<0.0050		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 03:03	1
Tin	<0.040		0.040	0.0035	mg/L		06/16/11 16:20	06/18/11 03:03	1
<b>Vanadium</b>	<b>0.0036 J</b>		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 03:03	1
Zinc	<0.020		0.020	0.0066	mg/L		06/16/11 16:20	06/18/11 03:03	1

### Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 03:09	1
<b>Barium</b>	<b>0.057</b>		0.010	0.00084	mg/L		06/16/11 16:20	06/18/11 03:09	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		06/16/11 16:20	06/18/11 03:09	1
Cadmium	<0.0020		0.0020	0.00036	mg/L		06/16/11 16:20	06/18/11 03:09	1
Chromium	<0.010		0.010	0.0015	mg/L		06/16/11 16:20	06/18/11 03:09	1
<b>Cobalt</b>	<b>0.00091 J</b>		0.0050	0.00043	mg/L		06/16/11 16:20	06/18/11 03:09	1
<b>Copper</b>	<b>0.0016 J</b>		0.010	0.0014	mg/L		06/16/11 16:20	06/18/11 03:09	1
Lead	<0.0050		0.0050	0.0020	mg/L		06/16/11 16:20	06/18/11 03:09	1
<b>Nickel</b>	<b>0.0015 J B</b>		0.010	0.00081	mg/L		06/16/11 16:20	06/18/11 03:09	1
Selenium	<0.010		0.010	0.0025	mg/L		06/16/11 16:20	06/18/11 03:09	1
Silver	<0.0050		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 03:09	1
Tin	<0.040		0.040	0.0035	mg/L		06/16/11 16:20	06/18/11 03:09	1
<b>Vanadium</b>	<b>0.0037 J</b>		0.0050	0.00071	mg/L		06/16/11 16:20	06/18/11 03:09	1
Zinc	<0.020		0.020	0.0066	mg/L		06/16/11 16:20	06/18/11 03:09	1

### Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.00063	mg/L		06/17/11 07:50	06/27/11 19:48	1
Thallium	<0.0020		0.0020	0.00036	mg/L		06/17/11 07:50	06/23/11 19:01	1

### Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.00063	mg/L		06/17/11 07:50	06/27/11 19:51	1
Thallium	<0.0020		0.0020	0.00036	mg/L		06/17/11 07:50	06/23/11 19:03	1

### Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020	^	0.00020	0.000051	mg/L		06/16/11 11:22	06/17/11 11:00	1

### Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020	^	0.00020	0.000051	mg/L		06/16/11 11:22	06/17/11 11:02	1

# Client Sample Results

Client: Deigan & Associates

Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1

SDG: 500-35392-1

**Client Sample ID: EXISTING AMPSKY WELL**

**Lab Sample ID: 500-35392-6**

**Matrix: Water**

Date Collected: 06/14/11 15:00

Date Received: 06/15/11 10:30

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.15	HF	0.200	0.200	SU			06/15/11 14:06	1

# Definitions/Glossary

Client: Deigan & Associates

Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1

SDG: 500-35392-1

## Qualifiers

### Metals

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
⊗	Listed under the "D" column to designate that the result is reported on a dry weight basis.
EPA	United States Environmental Protection Agency
ND	Not Detected above the reporting level.
MDL	Method Detection Limit
RL	Reporting Limit
RE, RE1 (etc.)	Indicates a Re-extraction or Reanalysis of the sample.
%R	Percent Recovery
RPD	Relative Percent Difference, a measure of the relative difference between two points.

# QC Association Summary

Client: Deigan & Associates

Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1

SDG: 500-35392-1

## Metals

### Prep Batch: 116722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-116722/7-A	Method Blank	Total/NA	Water	7470A	
LCS 500-116722/8-A	Lab Control Sample	Total/NA	Water	7470A	
500-35392-1	LSF MW01	Total/NA	Water	7470A	
500-35392-1	LSF MW01	Dissolved	Water	7470A	
500-35392-2	LSF MW02	Total/NA	Water	7470A	
500-35392-2	LSF MW02	Dissolved	Water	7470A	
500-35392-3	LSF MW03	Total/NA	Water	7470A	
500-35392-3	LSF MW03	Dissolved	Water	7470A	
500-35392-4	LSF MW04	Total/NA	Water	7470A	
500-35392-4	LSF MW04	Dissolved	Water	7470A	
500-35392-5	LSF MW05	Total/NA	Water	7470A	
500-35392-5	LSF MW05	Dissolved	Water	7470A	
500-35392-6	EXISTING AMPSKY WELL	Total/NA	Water	7470A	
500-35392-6	EXISTING AMPSKY WELL	Dissolved	Water	7470A	

### Prep Batch: 116748

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-116748/1-A	Method Blank	Total/NA	Water	3010A	
LCS 500-116748/2-A	Lab Control Sample	Total/NA	Water	3010A	
500-35392-1	LSF MW01	Total/NA	Water	3010A	
500-35392-1	LSF MW01	Dissolved	Water	3010A	
500-35392-2	LSF MW02	Total/NA	Water	3010A	
500-35392-2	LSF MW02	Dissolved	Water	3010A	
500-35392-3	LSF MW03	Total/NA	Water	3010A	
500-35392-3 DU	LSF MW03	Total/NA	Water	3010A	
500-35392-3 MS	LSF MW03	Total/NA	Water	3010A	
500-35392-3 MSD	LSF MW03	Total/NA	Water	3010A	
500-35392-3	LSF MW03	Dissolved	Water	3010A	
500-35392-4	LSF MW04	Total/NA	Water	3010A	
500-35392-4	LSF MW04	Dissolved	Water	3010A	
500-35392-5	LSF MW05	Total/NA	Water	3010A	
500-35392-5	LSF MW05	Dissolved	Water	3010A	
500-35392-6	EXISTING AMPSKY WELL	Total/NA	Water	3010A	
500-35392-6	EXISTING AMPSKY WELL	Dissolved	Water	3010A	

### Prep Batch: 116782

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-116782/1-A	Method Blank	Total Recoverable	Water	3005A	
MB 500-116782/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-116782/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCS 500-116782/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
500-35392-1	LSF MW01	Total Recoverable	Water	3005A	
500-35392-1	LSF MW01	Total Recoverable	Water	3005A	
500-35392-1 DU	LSF MW01	Total Recoverable	Water	3005A	
500-35392-1 DU	LSF MW01	Total Recoverable	Water	3005A	
500-35392-1 MS	LSF MW01	Total Recoverable	Water	3005A	
500-35392-1 MS	LSF MW01	Total Recoverable	Water	3005A	
500-35392-1 MSD	LSF MW01	Total Recoverable	Water	3005A	
500-35392-1 MSD	LSF MW01	Total Recoverable	Water	3005A	
500-35392-1	LSF MW01	Dissolved	Water	3005A	
500-35392-1	LSF MW01	Dissolved	Water	3005A	
500-35392-2	LSF MW02	Total Recoverable	Water	3005A	

# QC Association Summary

Client: Deigan & Associates  
 Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
 SDG: 500-35392-1

## Metals (Continued)

### Prep Batch: 116782 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-35392-2	LSF MW02	Total Recoverable	Water	3005A	1
500-35392-2	LSF MW02	Dissolved	Water	3005A	2
500-35392-2	LSF MW02	Dissolved	Water	3005A	3
500-35392-3	LSF MW03	Total Recoverable	Water	3005A	4
500-35392-3	LSF MW03	Total Recoverable	Water	3005A	5
500-35392-3	LSF MW03	Dissolved	Water	3005A	6
500-35392-3	LSF MW03	Dissolved	Water	3005A	7
500-35392-4	LSF MW04	Total Recoverable	Water	3005A	8
500-35392-4	LSF MW04	Total Recoverable	Water	3005A	9
500-35392-4	LSF MW04	Dissolved	Water	3005A	10
500-35392-4	LSF MW04	Dissolved	Water	3005A	11
500-35392-5	LSF MW05	Total Recoverable	Water	3005A	12
500-35392-5	LSF MW05	Total Recoverable	Water	3005A	13
500-35392-5	LSF MW05	Dissolved	Water	3005A	
500-35392-5	LSF MW05	Dissolved	Water	3005A	
500-35392-6	EXISTING AMPSKY WELL	Total Recoverable	Water	3005A	
500-35392-6	EXISTING AMPSKY WELL	Total Recoverable	Water	3005A	
500-35392-6	EXISTING AMPSKY WELL	Dissolved	Water	3005A	
500-35392-6	EXISTING AMPSKY WELL	Dissolved	Water	3005A	

### Analysis Batch: 116852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-116722/7-A	Method Blank	Total/NA	Water	7470A	116722
LCS 500-116722/8-A	Lab Control Sample	Total/NA	Water	7470A	116722
500-35392-1	LSF MW01	Total/NA	Water	7470A	116722
500-35392-1	LSF MW01	Dissolved	Water	7470A	116722
500-35392-2	LSF MW02	Total/NA	Water	7470A	116722
500-35392-2	LSF MW02	Dissolved	Water	7470A	116722
500-35392-3	LSF MW03	Total/NA	Water	7470A	116722
500-35392-3	LSF MW03	Dissolved	Water	7470A	116722
500-35392-4	LSF MW04	Total/NA	Water	7470A	116722
500-35392-4	LSF MW04	Dissolved	Water	7470A	116722
500-35392-5	LSF MW05	Total/NA	Water	7470A	116722
500-35392-5	LSF MW05	Dissolved	Water	7470A	116722
500-35392-6	EXISTING AMPSKY WELL	Total/NA	Water	7470A	116722
500-35392-6	EXISTING AMPSKY WELL	Dissolved	Water	7470A	116722

### Analysis Batch: 116931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-116748/1-A	Method Blank	Total/NA	Water	6010B	116748
LCS 500-116748/2-A	Lab Control Sample	Total/NA	Water	6010B	116748
500-35392-1	LSF MW01	Total/NA	Water	6010B	116748
500-35392-1	LSF MW01	Dissolved	Water	6010B	116748
500-35392-2	LSF MW02	Total/NA	Water	6010B	116748
500-35392-2	LSF MW02	Dissolved	Water	6010B	116748
500-35392-3	LSF MW03	Total/NA	Water	6010B	116748
500-35392-3 DU	LSF MW03	Total/NA	Water	6010B	116748
500-35392-3 MS	LSF MW03	Total/NA	Water	6010B	116748
500-35392-3 MSD	LSF MW03	Total/NA	Water	6010B	116748
500-35392-3	LSF MW03	Dissolved	Water	6010B	116748
500-35392-4	LSF MW04	Total/NA	Water	6010B	116748
500-35392-4	LSF MW04	Dissolved	Water	6010B	116748

# QC Association Summary

Client: Deigan & Associates  
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
SDG: 500-35392-1

## Metals (Continued)

### Analysis Batch: 116931 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-35392-5	LSF MW05	Total/NA	Water	6010B	116748
500-35392-5	LSF MW05	Dissolved	Water	6010B	116748
500-35392-6	EXISTING AMPSKY WELL	Total/NA	Water	6010B	116748
500-35392-6	EXISTING AMPSKY WELL	Dissolved	Water	6010B	116748

### Analysis Batch: 117563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-116782/1-A	Method Blank	Total Recoverable	Water	6020	116782
LCS 500-116782/2-A	Lab Control Sample	Total Recoverable	Water	6020	116782
500-35392-1	LSF MW01	Total Recoverable	Water	6020	116782
500-35392-1 DU	LSF MW01	Total Recoverable	Water	6020	116782
500-35392-1 MS	LSF MW01	Total Recoverable	Water	6020	116782
500-35392-1 MSD	LSF MW01	Total Recoverable	Water	6020	116782
500-35392-1	LSF MW01	Dissolved	Water	6020	116782
500-35392-2	LSF MW02	Total Recoverable	Water	6020	116782
500-35392-2	LSF MW02	Dissolved	Water	6020	116782
500-35392-3	LSF MW03	Total Recoverable	Water	6020	116782
500-35392-3	LSF MW03	Dissolved	Water	6020	116782
500-35392-4	LSF MW04	Total Recoverable	Water	6020	116782
500-35392-4	LSF MW04	Dissolved	Water	6020	116782
500-35392-5	LSF MW05	Total Recoverable	Water	6020	116782
500-35392-5	LSF MW05	Dissolved	Water	6020	116782
500-35392-6	EXISTING AMPSKY WELL	Total Recoverable	Water	6020	116782
500-35392-6	EXISTING AMPSKY WELL	Dissolved	Water	6020	116782

### Analysis Batch: 117853

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-116782/1-A	Method Blank	Total Recoverable	Water	6020	116782
LCS 500-116782/2-A	Lab Control Sample	Total Recoverable	Water	6020	116782
500-35392-1	LSF MW01	Total Recoverable	Water	6020	116782
500-35392-1 DU	LSF MW01	Total Recoverable	Water	6020	116782
500-35392-1 MS	LSF MW01	Total Recoverable	Water	6020	116782
500-35392-1 MSD	LSF MW01	Total Recoverable	Water	6020	116782
500-35392-1	LSF MW01	Dissolved	Water	6020	116782

### Analysis Batch: 117860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-35392-2	LSF MW02	Total Recoverable	Water	6020	116782
500-35392-2	LSF MW02	Dissolved	Water	6020	116782
500-35392-3	LSF MW03	Total Recoverable	Water	6020	116782
500-35392-3	LSF MW03	Dissolved	Water	6020	116782
500-35392-4	LSF MW04	Total Recoverable	Water	6020	116782
500-35392-4	LSF MW04	Dissolved	Water	6020	116782
500-35392-5	LSF MW05	Total Recoverable	Water	6020	116782
500-35392-5	LSF MW05	Dissolved	Water	6020	116782
500-35392-6	EXISTING AMPSKY WELL	Total Recoverable	Water	6020	116782
500-35392-6	EXISTING AMPSKY WELL	Dissolved	Water	6020	116782

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# QC Association Summary

Client: Deigan & Associates  
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
SDG: 500-35392-1

## General Chemistry

Analysis Batch: 116685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-35392-1	LSF MW01	Total/NA	Water	9040B	1
500-35392-1 DU	LSF MW01	Total/NA	Water	9040B	2
500-35392-2	LSF MW02	Total/NA	Water	9040B	3
500-35392-2 DU	LSF MW02	Total/NA	Water	9040B	4
500-35392-3	LSF MW03	Total/NA	Water	9040B	5
500-35392-3 DU	LSF MW03	Total/NA	Water	9040B	6
500-35392-4	LSF MW04	Total/NA	Water	9040B	7
500-35392-4 DU	LSF MW04	Total/NA	Water	9040B	8
500-35392-5	LSF MW05	Total/NA	Water	9040B	9
500-35392-5 DU	LSF MW05	Total/NA	Water	9040B	10
500-35392-6	EXISTING AMPSKY WELL	Total/NA	Water	9040B	11
500-35392-6 DU	EXISTING AMPSKY WELL	Total/NA	Water	9040B	12

# QC Sample Results

Client: Deigan & Associates  
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
SDG: 500-35392-1

## Method: 6010B - Metals (ICP)

**Lab Sample ID: MB 500-116748/1-A**

**Matrix: Water**

**Analysis Batch: 116931**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

**Prep Batch: 116748**

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier									
Arsenic	<0.010		0.010		0.0025	mg/L			06/16/11 16:20	06/18/11 00:56	1
Barium	<0.010		0.010		0.00084	mg/L			06/16/11 16:20	06/18/11 00:56	1
Beryllium	<0.0040		0.0040		0.00051	mg/L			06/16/11 16:20	06/18/11 00:56	1
Cadmium	<0.0020		0.0020		0.00036	mg/L			06/16/11 16:20	06/18/11 00:56	1
Chromium	<0.010		0.010		0.0015	mg/L			06/16/11 16:20	06/18/11 00:56	1
Cobalt	<0.0050		0.0050		0.00043	mg/L			06/16/11 16:20	06/18/11 00:56	1
Copper	<0.010		0.010		0.0014	mg/L			06/16/11 16:20	06/18/11 00:56	1
Lead	<0.0050		0.0050		0.0020	mg/L			06/16/11 16:20	06/18/11 00:56	1
Nickel	0.00318 J		0.010		0.00081	mg/L			06/16/11 16:20	06/18/11 00:56	1
Selenium	<0.010		0.010		0.0025	mg/L			06/16/11 16:20	06/18/11 00:56	1
Silver	<0.0050		0.0050		0.00071	mg/L			06/16/11 16:20	06/18/11 00:56	1
Tin	<0.040		0.040		0.0035	mg/L			06/16/11 16:20	06/18/11 00:56	1
Vanadium	<0.0050		0.0050		0.00071	mg/L			06/16/11 16:20	06/18/11 00:56	1
Zinc	<0.020		0.020		0.0066	mg/L			06/16/11 16:20	06/18/11 00:56	1

**Lab Sample ID: LCS 500-116748/2-A**

**Matrix: Water**

**Analysis Batch: 116931**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

**Prep Batch: 116748**

Analyte	Spike Added	LCS			Unit	D	% Rec	Limits
		Result	Qualifier	% Rec.				
Arsenic	0.100	0.0947		95	mg/L		80 - 120	
Barium	2.00	2.02		101	mg/L		80 - 120	
Beryllium	0.0500	0.0478		96	mg/L		80 - 120	
Cadmium	0.0500	0.0483		97	mg/L		80 - 120	
Chromium	0.200	0.199		99	mg/L		80 - 120	
Cobalt	0.500	0.485		97	mg/L		80 - 120	
Copper	0.250	0.252		101	mg/L		80 - 120	
Lead	0.100	0.0991		99	mg/L		80 - 120	
Nickel	0.500	0.490		98	mg/L		80 - 120	
Selenium	0.100	0.0898		90	mg/L		80 - 120	
Silver	0.0500	0.0467		93	mg/L		80 - 120	
Tin	1.00	0.962		96	mg/L		80 - 120	
Vanadium	0.500	0.500		100	mg/L		80 - 120	
Zinc	0.500	0.467		93	mg/L		80 - 120	

**Lab Sample ID: 500-35392-3 MS**

**Matrix: Water**

**Analysis Batch: 116931**

**Client Sample ID: LSF MW03**

**Prep Type: Total/NA**

**Prep Batch: 116748**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	% Rec	Limits
	Result	Qualifier	Added						
Arsenic	<0.010		0.100	0.0959		mg/L		96	75 - 125
Barium	0.049		2.00	2.00		mg/L		97	75 - 125
Beryllium	<0.0040		0.0500	0.0460		mg/L		92	75 - 125
Cadmium	<0.0020		0.0500	0.0459		mg/L		92	75 - 125
Chromium	<0.010		0.200	0.189		mg/L		95	75 - 125
Cobalt	<0.0050		0.500	0.455		mg/L		91	75 - 125
Copper	0.15		0.250	0.386		mg/L		93	75 - 125
Lead	<0.0050		0.100	0.0945		mg/L		95	75 - 125
Nickel	0.012 B		0.500	0.469		mg/L		91	75 - 125
Selenium	0.0030 J		0.100	0.0907		mg/L		88	75 - 125

# QC Sample Results

Client: Deigan & Associates

Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1

SDG: 500-35392-1

## Method: 6010B - Metals (ICP) (Continued)

**Lab Sample ID: 500-35392-3 MS**

**Matrix: Water**

**Analysis Batch: 116931**

**Client Sample ID: LSF MW03**

**Prep Type: Total/NA**

**Prep Batch: 116748**

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	% Rec.	Limits		
	Result	Qualifier	Added	Result	Qualifier						
Silver	<0.0050		0.0500	0.0457		mg/L	91	75 - 125			
Tin	<0.040		1.00	0.938		mg/L	94	75 - 125			
Vanadium	0.0030 J		0.500	0.485		mg/L	96	75 - 125			
Zinc	0.13		0.500	0.554		mg/L	85	75 - 125			

**Lab Sample ID: 500-35392-3 MSD**

**Matrix: Water**

**Analysis Batch: 116931**

**Client Sample ID: LSF MW03**

**Prep Type: Total/NA**

**Prep Batch: 116748**

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	% Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Arsenic	<0.010		0.100	0.0966		mg/L	97	75 - 125		1	20
Barium	0.049		2.00	1.98		mg/L	97	75 - 125	1	20	
Beryllium	<0.0040		0.0500	0.0461		mg/L	92	75 - 125	0	20	
Cadmium	<0.0020		0.0500	0.0454		mg/L	91	75 - 125	1	20	
Chromium	<0.010		0.200	0.190		mg/L	95	75 - 125	0	20	
Cobalt	<0.0050		0.500	0.455		mg/L	91	75 - 125	0	20	
Copper	0.15		0.250	0.391		mg/L	95	75 - 125	1	20	
Lead	<0.0050		0.100	0.0955		mg/L	96	75 - 125	1	20	
Nickel	0.012 B		0.500	0.469		mg/L	91	75 - 125	0	20	
Selenium	0.0030 J		0.100	0.0908		mg/L	88	75 - 125	0	20	
Silver	<0.0050		0.0500	0.0461		mg/L	92	75 - 125	1	20	
Tin	<0.040		1.00	0.941		mg/L	94	75 - 125	0	20	
Vanadium	0.0030 J		0.500	0.485		mg/L	96	75 - 125	0	20	
Zinc	0.13		0.500	0.561		mg/L	86	75 - 125	1	20	

**Lab Sample ID: 500-35392-3 DU**

**Matrix: Water**

**Analysis Batch: 116931**

**Client Sample ID: LSF MW03**

**Prep Type: Total/NA**

**Prep Batch: 116748**

Analyte	Sample	Sample	DU	DU	Unit	D			RPD	Limit
	Result	Qualifier		Result						
Arsenic	<0.010		<0.010		mg/L	NC	20			
Barium	0.049		0.0468		mg/L	5	20			
Beryllium	<0.0040		<0.0040		mg/L	NC	20			
Cadmium	<0.0020		<0.0020		mg/L	NC	20			
Chromium	<0.010		<0.010		mg/L	NC	20			
Cobalt	<0.0050		<0.0050		mg/L	NC	20			
Copper	0.15		0.146		mg/L	4	20			
Lead	<0.0050		<0.0050		mg/L	NC	20			
Nickel	0.012 B		0.0115		mg/L	7	20			
Selenium	0.0030 J		0.00273 J		mg/L	8	20			
Silver	<0.0050		<0.0050		mg/L	NC	20			
Tin	<0.040		<0.040		mg/L	NC	20			
Vanadium	0.0030 J		0.00244 J		mg/L	21	20			
Zinc	0.13		0.122		mg/L	5	20			

# QC Sample Results

Client: Deigan & Associates  
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
SDG: 500-35392-1

## Method: 6020 - Metals (ICP/MS)

**Lab Sample ID:** MB 500-116782/1-A

**Matrix:** Water

**Analysis Batch:** 117563

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Thallium	<0.0020									

**Lab Sample ID:** MB 500-116782/1-A

**Matrix:** Water

**Analysis Batch:** 117853

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Antimony	<0.0030									

**Lab Sample ID:** LCS 500-116782/2-A

**Matrix:** Water

**Analysis Batch:** 117563

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	% Rec.	Limits	Limits
	Thallium	Added	0.100	0.0994	mg/L	99	80 - 120			

**Lab Sample ID:** LCS 500-116782/2-A

**Matrix:** Water

**Analysis Batch:** 117853

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	% Rec.	Limits	Limits
	Antimony	Added	0.500	0.524	mg/L	105	80 - 120			

**Lab Sample ID:** 500-35392-1 MS

**Matrix:** Water

**Analysis Batch:** 117563

Analyte	Sample	Sample	Spike	MS	MS	Result	Qualifier	Unit	D	% Rec.	Limits
	Thallium	Result	Qualifier	Added	Result	Qualifier	mg/L	99	75 - 125		

**Lab Sample ID:** 500-35392-1 MS

**Matrix:** Water

**Analysis Batch:** 117853

Analyte	Sample	Sample	Spike	MS	MS	Result	Qualifier	Unit	D	% Rec.	Limits
	Antimony	Result	Qualifier	Added	Result	Qualifier	mg/L	92	75 - 125		

**Lab Sample ID:** 500-35392-1 MSD

**Matrix:** Water

**Analysis Batch:** 117563

Analyte	Sample	Sample	Spike	MSD	MSD	Result	Qualifier	Unit	D	% Rec.	RPD
	Thallium	Result	Qualifier	Added	Result	Qualifier	mg/L	103	75 - 125	4	20

**Lab Sample ID:** 500-35392-1 MSD

**Matrix:** Water

**Analysis Batch:** 117853

Analyte	Sample	Sample	Spike	MSD	MSD	Result	Qualifier	Unit	D	% Rec.	RPD
	Antimony	Result	Qualifier	Added	Result	Qualifier	mg/L	95	75 - 125	3	20

# QC Sample Results

Client: Deigan & Associates  
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
SDG: 500-35392-1

## Method: 6020 - Metals (ICP/MS) (Continued)

**Lab Sample ID:** 500-35392-1 DU

**Matrix:** Water

**Analysis Batch:** 117563

**Client Sample ID:** LSF MW01

**Prep Type:** Total Recoverable

**Prep Batch:** 116782

**RPD**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Thallium	<0.0020		<0.0020		mg/L		NC	20

**Lab Sample ID:** 500-35392-1 DU

**Matrix:** Water

**Analysis Batch:** 117853

**Client Sample ID:** LSF MW01

**Prep Type:** Total Recoverable

**Prep Batch:** 116782

**RPD**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
Antimony	<0.0030		<0.0030		mg/L		NC	20

## Method: 7470A - Mercury (CVAA)

**Lab Sample ID:** MB 500-116722/7-A

**Matrix:** Water

**Analysis Batch:** 116852

**Client Sample ID:** Method Blank

**Prep Type:** Total/NA

**Prep Batch:** 116722

**RPD**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.00020	^	0.00020	0.000051	mg/L		06/16/11 11:22	06/17/11 10:36	1

**Lab Sample ID:** LCS 500-116722/8-A

**Matrix:** Water

**Analysis Batch:** 116852

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total/NA

**Prep Batch:** 116722

**RPD**

Analyte	Spike	LCS	LCS	Unit	D	% Rec.	Limits
	Added	Result	Qualifier				
Mercury	0.00200	0.00204	^	mg/L		102	80 - 120

## Method: 9040B - pH

**Lab Sample ID:** 500-35392-1 DU

**Matrix:** Water

**Analysis Batch:** 116685

**Client Sample ID:** LSF MW01

**Prep Type:** Total/NA

**RPD**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
pH	6.89	HF	6.900		SU		0.1	

**Lab Sample ID:** 500-35392-2 DU

**Matrix:** Water

**Analysis Batch:** 116685

**Client Sample ID:** LSF MW02

**Prep Type:** Total/NA

**RPD**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
pH	7.09	HF	7.070		SU		0.282	

**Lab Sample ID:** 500-35392-3 DU

**Matrix:** Water

**Analysis Batch:** 116685

**Client Sample ID:** LSF MW03

**Prep Type:** Total/NA

**RPD**

Analyte	Sample	Sample	DU	DU	Unit	D	RPD	Limit
	Result	Qualifier	Result	Qualifier				
pH	7.40	HF	7.430		SU		0.405	

# QC Sample Results

Client: Deigan & Associates  
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1  
SDG: 500-35392-1

## Method: 9040B - pH (Continued)

Lab Sample ID: 500-35392-4 DU

Matrix: Water

Analysis Batch: 116685

Client Sample ID: LSF MW04  
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	D	RPD	Limit
	Result	Qualifier	Result	Qualifier			
pH	7.36	HF	7.410		SU	0.677	

Lab Sample ID: 500-35392-5 DU

Matrix: Water

Analysis Batch: 116685

Client Sample ID: LSF MW05  
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	D	RPD	Limit
	Result	Qualifier	Result	Qualifier			
pH	7.17	HF	7.200		SU	0.418	

Lab Sample ID: 500-35392-6 DU

Matrix: Water

Analysis Batch: 116685

Client Sample ID: EXISTING AMPSKY WELL  
Prep Type: Total/NA

Analyte	Sample	Sample	DU	DU	D	RPD	Limit
	Result	Qualifier	Result	Qualifier			
pH	7.15	HF	7.160		SU	0.140	

# Certification Summary

Client: Deigan & Associates

Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-35392-1

SDG: 500-35392-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Chicago	ACCLASS	DoD ELAP		ADE-1429
TestAmerica Chicago	ACCLASS	ISO/IEC 17025		AT-1428
TestAmerica Chicago	Alabama	State Program	4	40461
TestAmerica Chicago	California	NELAC	9	01132CA
TestAmerica Chicago	Florida	NELAC	4	E871072
TestAmerica Chicago	Georgia	Georgia EPD	4	N/A
TestAmerica Chicago	Georgia	State Program	4	939
TestAmerica Chicago	Hawaii	State Program	9	N/A
TestAmerica Chicago	Illinois	NELAC	5	100201
TestAmerica Chicago	Indiana	State Program	5	C-IL-02
TestAmerica Chicago	Iowa	State Program	7	82
TestAmerica Chicago	Kansas	NELAC	7	E-10161
TestAmerica Chicago	Kentucky	Kentucky UST	4	66
TestAmerica Chicago	Kentucky	State Program	4	90023
TestAmerica Chicago	Louisiana	NELAC	6	30720
TestAmerica Chicago	Massachusetts	State Program	1	M-IL035
TestAmerica Chicago	Mississippi	State Program	4	N/A
TestAmerica Chicago	North Carolina	North Carolina DENR	4	291
TestAmerica Chicago	Oklahoma	State Program	6	8908
TestAmerica Chicago	South Carolina	State Program	4	77001
TestAmerica Chicago	Texas	NELAC	6	T104704252-09-TX
TestAmerica Chicago	USDA	USDA		P330-09-00027
TestAmerica Chicago	Virginia	NELAC Secondary AB	3	460142
TestAmerica Chicago	Wisconsin	State Program	5	999580010
TestAmerica Chicago	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

## TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484  
Phone: 708.534.5200 Fax: 708.534.5211

(optional)

Report To: \_\_\_\_\_

Contact: \_\_\_\_\_

Company: Design & Assoc LLC

Address: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: (847) 578-5000

Fax: \_\_\_\_\_

E-Mail: \_\_\_\_\_

(optional)

Bill To: \_\_\_\_\_

Contact: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

PO#/Reference#: \_\_\_\_\_

## Chain of Custody Record

Lab Job #: 500-35392

Chain of Custody Number: \_\_\_\_\_

Page 1 of 1

Temperature °C of Cooler: \_\_\_\_\_

- Preservative Key:
1. HCl, Cool to 4°
  2. H<sub>2</sub>SO<sub>4</sub>, Cool to 4°
  3. HNO<sub>3</sub>, Cool to 4°
  4. NaOH, Cool to 4°
  5. NaOH/Zn, Cool to 4°
  6. NaHSO<sub>4</sub>
  7. Cool to 4°
  8. None
  9. Other

## Comments

MS/MSD	Sample ID	Sampling		# of Containers	Matrix	Parameter	<u>Total Metals</u>	<u>Dissolved Metals</u>						
		Date	Time											
	LSFMW01	6/14	200PM	3	W		✓	✓	✓					
	LSFMW02	6/14	1015AM	3	W		✓	✓	✓					
	LSFMW03	6/14	100PM	3	W		✓	✓	✓					
	LSFMW04	6/14	1215AM	3	W		✓	✓	✓					
	LSFMW05	6/14	1115AM	3	W		✓	✓	✓					
	Existing Ampsby Wall	6/14	300PM	3	W		✓	✓	✓					

## Turnaround Time Required (Business Days)

1 Day  2 Days  5 Days  7 Days  10 Days  15 Days  Other \_\_\_\_\_

## Sample Disposal

A fee may be assessed if samples are retained longer than 1 month)

Queried By \_\_\_\_\_

Queried By \_\_\_\_\_ Company \_\_\_\_\_ Date 6/14/11 Time 400PM

Received By \_\_\_\_\_

Company FEDEX Date 6/14/11 Time 400PM

Lab Courier \_\_\_\_\_

Queried By \_\_\_\_\_

Queried By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Received By \_\_\_\_\_

Company Jeff Jorrell TA Date 6/15/11 Time 1030

Shipped \_\_\_\_\_

Queried By \_\_\_\_\_

Queried By \_\_\_\_\_ Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Received By \_\_\_\_\_

Company \_\_\_\_\_ Date \_\_\_\_\_ Time \_\_\_\_\_

Hand Delivered \_\_\_\_\_

## Matrix Key

- Wastewater
- Water
- Soil
- Sludge
- Miscellaneous
- Oil
- Air
- SE - Sediment
- SO - Soil
- L - Leachate
- WI - Wipe
- DW - Drinking Water
- O - Other

## Client Comments

## Lab Comments:

## Login Sample Receipt Checklist

Client: Deigan & Associates

Job Number: 500-35392-1

SDG Number: 500-35392-1

**Login Number: 35392**

**List Source: TestAmerica Chicago**

**List Number: 1**

**Creator: James, Jeff A**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	